

DERWENT-ACC-NO: 2003-372616

DERWENT-WEEK: 200336

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TITLE: Free standing heating apparatus for a living area, uses pelletized wood waste material as a **Biomass** fuel, comprises hopper feed system controlled by a 180degrees timed round rotating disk dropping pellets into a slide shaft and **burn pot**

INVENTOR: GECK, D; TOBIAS, H L

PATENT-ASSIGNEE: GECK D[GECKI] , TOBIAS H L[TOBII]

PRIORITY-DATA: 2001CA-2358404 (September 20, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	
MAIN-IPC				
CA 2358404 A1	March 20, 2003	E	018	F23G
007/10				

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
CA 2358404A1	N/A	2001CA-2358404	September 20,
2001			

INT-CL (IPC): F23G007/10

ABSTRACTED-PUB-NO: CA 2358404A

BASIC-ABSTRACT:

NOVELTY - The hopper feed system is controlled by a 180 deg. timed round rotating disk (3), which drops the pellets into a slide shaft (6) and **burn pot** (8). An outside mounted air exchanger has a exhaust pipe mounted within a larger air intake pipe powered by an electric motor. Extrudes hot exhaust and at the same time draws fresh air into the apparatus for distribution of hot air into the desire facility.

USE - Free standing heating apparatus for heating a living area, uses pelletized wood waste material as a **Biomass** fuel.

ADVANTAGE - Eliminates the danger of any back burn or plugging. The exhaust ventilation system which encompasses the hot gas vent, exhausts gases through one pipe and draws in outside fresh air through a larger diameter pipe encompassing the hot gas vent, into the burning chamber eliminating the use of present room oxygen, and at the same time, warming the fresh air drawn into the appliance. The apparatus is free standing and may used as a fireplace insert. Fabricated with steel the life expectancy is unlimited. The auger-less feed and fresh air eliminates a chimney and has a 0 heat tolerance for safety. The apparatus will burn any combustible fuel pellets produced from various waste materials with significant reduction in pollutant emissions. The exterior will maintain room temperature while the firebox may extrude 40,000 BTU. The heater also provides the benefit of having a wide range of exterior color panels or exterior wood finishes.

DESCRIPTION OF DRAWING(S) - The drawing shows an exploded view of the pellet stove apparatus. Rotating disk 3

Slide shaft 6

**Burn pot 8**

CHOSEN-DRAWING: Dwg.1/6

TITLE-TERMS: FREE STAND HEAT APPARATUS LIVE AREA PELLET WOOD WASTE MATERIAL  
**BIOMASS** FUEL COMPRISE HOPPER FEED SYSTEM CONTROL TIME ROUND  
ROTATING DISC DROP PELLET SLIDE SHAFT **BURN POT**


DERWENT-CLASS: Q73

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2003-297222

Day : Friday  
Date: 10/14/2005

Time: 10:17:01

PALM INTRANET

## Inventor Information for 10/802463

Inventor Name	City	State/Country
WALKER, ROBERT A.	RAMSEY	MINNESOTA
EMBERTSON, ROSS CONRAD	FRIDLEY	MINNESOTA

Appln Info	Contents	Petition Info	Atty/Agent Info	Continuity Data	Foreign Data
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Search Another: Application#   or Patent#    
PCT /  /   or PG PUBS #    
Attorney Docket #    
Bar Code #

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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"20050208445"	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 10:37
L2	100	"20050208445"("5295474" "5383446" "5323760" "4377116" "5001993" "5488943" "6138661" "4430948" "6302039" "4368721" "4893771" "6336269" "4881472" "4922889" "5285738" "5297493" "5873356" "5024208" "5617841" "4828577" "5291840" "5484465" "5573559" "4253407" "4397293" "4909235" "4934282" "5435257" "5799590" "5974952" "6409214" "6886476" "5180562" "5255439" "6126136" "4448002" "4326495" "6165426" "4309254" "4513936" "5011114" "6344508" "4454860" "4548194" "4587947" "4591470" "5230720" "5379787" "5642676" "5752451").pn. ("6418866" "4366781" "4443385" "5618321" "5755837" "5762657" "4406942" "4542266" "4544818" "4622000" "4629866" "4823684" "5183995" "5456808" "5557826" "5665213" "5810578" "5872351" "6035768" "6216764" "6216764" "6246033" "5855769" "6073775" "6468688" "4471502" "4504281" "4543943" "4553524" "4603656" "4627236" "4850556" "5273000" "5442919" "5660099" "6000388" "6056146" "6109232" "4498909" "5678494" "4254715" "4363638" "4380960" "4428308" "4452611" "4758248" "5279234" "5553554" "5720165" "5823122").pn.	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 10:45
L3	7	((("6035768") or ("5873356") or ("5799590") or ("5297493") or ("5291840") or ("5285738") or ("4823689")).PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 10:46
L4	7	((("6035768") or ("5873356") or ("5799590") or ("5297493") or ("5291840") or ("5285738") or ("4823684")).PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 10:47
L5	10	((("4351315") or ("4438756") or ("4545360") or ("4585161") or ("4922889") or ("5001993") or ("5014680") or ("5144941") or ("5152309") or ("5183028")).PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 10:50

L6	9	((("3027855") or ("3734037") or ("3855950") or ("4020773") or ("4048928") or ("4884515") or ("5070798") or ("5123360") or ("5133266"))).PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 10:59
L7	1	biomass and burn near pot and (translat\$3 near3 plate)	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:00
L8	0	biomass and burn near pot and (moveable near3 (plate or floor))	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:00
L9	0	burn near pot and (moveable near3 (plate or floor))	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:00
L10	7	biomass and burn near pot	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:01
L11	1	biomass and burn near pot	EPO; JPO; DERWENT	OR	ON	2005/10/14 11:01
L12	19	burn near pot	EPO; JPO; DERWENT	OR	ON	2005/10/14 11:01
L13	61	burn near pot	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:14
L14	6	furnace and (ash near3 column) same remove	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 12:14
L15	25	furnace and (ash near3 column) same remov\$3	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:16
L16	78	(126/225).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:26
L17	5	"1804285".uref,repn,rlpn,bi.	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 11:34
L18	119	(126/245).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46
L19	194	(126/243).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46
L20	601	(126/144).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46
L21	89	(126/145).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46
L22	130	(126/151).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46
L23	27	(126/555).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46

L24	315	(110/317).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:46
L25	797	(110/165R).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:48
L26	9878	F23G005/00	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 12:54
L27	4721	F23J001/00	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 11:51
L28	31	(126/82).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:51
L29	1234	F23M005/00	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 11:52
L30	302	F24B013/02	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 11:56
L31	1	("1804285").PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 11:56
L32	1	("0930052").PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:14
L33	49	(110/169).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:14
L34	0	furnace and (clinker near3 column) same remove	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 12:18
L35	76	(110/167).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:26
L36	61	(110/168).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:18
L37	208	(126/169).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:34
L38	142	(126/177).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:26
L39	88	(126/244).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:37
L40	194	(126/243).CCLS.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:45
L41	1	"2396537".uref,repn,rlpn,bi.	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 12:47
L42	550	stove and ash and pivot\$3	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 12:47

L43	25	stove and ash near5 pivot\$3	US-PGPUB; USPAT; USOCR	OR	ON	2005/10/14 12:49
L44	20	((("2302197") or ("2370246") or ("3092050") or ("3104629") or ("3837012") or ("4048928") or ("4203374") or ("4384534") or ("4520738") or ("4534301") or ("4624239") or ("4625660") or ("4798150") or ("4852504") or ("4884515") or ("5000100") or ("5159884") or ("5582117") or ("5873356") or ("5893358"))).PN.	US-PGPUB; USPAT	OR	OFF	2005/10/14 12:50
L45	1006	F23J001/02	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 12:54
L46	0	45 and ((moveable or translat\$3)near5 floor)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 12:55
L47	0	F23J001/00 and ((moveable or translat\$3)near5 floor)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/10/14 12:55